

CLAIMS

1. A method for communicating via an intermediate system between a plurality of wireless devices having client-side software associated with a plurality of application programs and a plurality of remote systems having server-side software associated with the application programs, comprising the steps of:

storing in the intermediate system descriptions of application-level protocols and indications of correspondences between the application-level protocols and the application programs, each application-level protocol having a corresponding association with one of the application programs;

storing in the intermediate system identifications of users and lists of application programs and remote systems associated with the users, each list listing the application programs associated with each user and listing a remote system associated with each application program in the list;

in response to use of an application program by a user of one of the wireless devices, the intermediate system receiving information identifying the wireless device used and identifying the application program used;

in response to receipt of the information identifying the wireless device used and the application program used, the intermediate system identifying the application-level protocol associated with the identified application program, and the intermediate system identifying the remote system associated with the identified wireless device and identified application program;

in response to the use of the application program, the intermediate system receiving application program output from the identified wireless device, the application program output received in accordance with a transport-level protocol, each wireless device of the plurality of wireless hand-held devices communicating

respective application program output to the intermediate system in accordance with the transport-level protocol; and

the intermediate system transmitting the received application program output in accordance with the identified application protocol to a remote system associated with the identified application program.

2. The method claimed in claim 1, wherein the step of the intermediate system receiving information comprises the intermediate system receiving a message having a header and a body, the header identifying the user by login identification, and the body identifying an action and an application program associated with the user and the action.
3. The method claimed in claim 2, wherein the body includes the application program output.
4. The method claimed in claim 3, wherein the application program output is an electronic mail message.
5. The method claimed in claim 2, wherein the action is selected from the group consisting of send mail and get mail.
6. The method claimed in claim 1, wherein the step of storing in the intermediate system identifications of users and lists of application programs and remote systems associated with the users comprises storing user configuration lists, each user configuration list including information identifying a user and information identifying one or more application programs associated with the user.
7. The method claimed in claim 6, wherein the step of the intermediate system

receiving information comprises the intermediate system receiving a message having a header and a body, the header identifying the user by login identification, and the body identifying an action and an application program associated with the user and the action.

8. The method claimed in claim 7, wherein each user configuration list includes information identifying a server associated with each application program and login information for the user associated with the application program.

9. The method claimed in claim 8, wherein the action is change configuration, and the body includes fields having values to replace values in corresponding fields of the configuration list associated with the identified user.

10. An intermediate system for facilitating communication between a plurality of wireless devices having client-side software associated with a plurality of application programs and a plurality of remote systems having server-side software associated with the application programs, comprising:

a protocol configuration database in which is storable descriptions of application-level protocols and indications of correspondences between the application-level protocols and the application programs, each application-level protocol having a corresponding association with one of the application programs;

a user configuration database in which is storable identifications of users and lists of application programs and remote systems associated with the users, each list listing the application programs associated with each user and listing a remote system associated with each application program in the list; and

a processor system programmed to effect a method in accordance with the steps of:

in response to use of an application program by a user of one of the wireless

devices, receiving information identifying the wireless device used and identifying the application program used;

in response to receipt of the information identifying the wireless device used and the application program used, identifying the application-level protocol associated with the identified application program, and the intermediate system identifying the remote system associated with the identified wireless device and identified application program;

in response to the use of the application program, receiving application program output from the identified wireless device, the application program output received in accordance with a transport-level protocol, each wireless device of the plurality of wireless hand-held devices communicating respective application program output to the intermediate system in accordance with the transport-level protocol; and

transmitting the received application program output in accordance with the identified application protocol to a remote system associated with the identified application program.

11. The system claimed in claim 10, wherein the processor system receives a message having a header and a body, the header identifying the user by login identification, and the body identifying an action and an application program associated with the user and the action.

12. The system claimed in claim 11, wherein the body includes the application program output.

13. The system claimed in claim 12, wherein the application program output is an electronic mail message.

14. The system claimed in claim 11, wherein the action is selected from the group

consisting of send mail and get mail.

15. The system claimed in claim 10, wherein the processor system stores user configuration lists, each user configuration list including information identifying a user and information identifying one or more application programs associated with the user.

16. The system claimed in claim 15, wherein the processor system receives a message having a header and a body, the header identifying the user by login identification, and the body identifying an action and an application program associated with the user and the action.

17. The system claimed in claim 16, wherein each user configuration list includes information identifying a server associated with each application program and login information for the user associated with the application program.

18. The system claimed in claim 17, wherein the action is change configuration, and the body includes fields having values to replace values in corresponding fields of the configuration list associated with the identified user.

03/24/03 10:16:00 AM